

**DIPLOMA IN CIVIL ENGINEERING
DCLE(G) / DCLEVI**

Term-End Examination

December, 2015

**BCE-034 : ESTIMATING AND QUANTITY
SURVEYING - I**

Time : 2 hours

Maximum Marks : 70

Note : Question no. 1 is compulsory. Solve any other four questions. Assume any missing data. Use of calculator is allowed.

1. With reference to the underground 1st class brick masonry tank (Figure 1), calculate the following items of work :
- (a) 1st class brick-work upto G.L. and above G.L., separately. 6
 - (b) C.C. plaster, 1 : 6 and 1 : 4, separately. 5
 - (c) C.C. flooring in both cubic and superficial contents, separately. 3

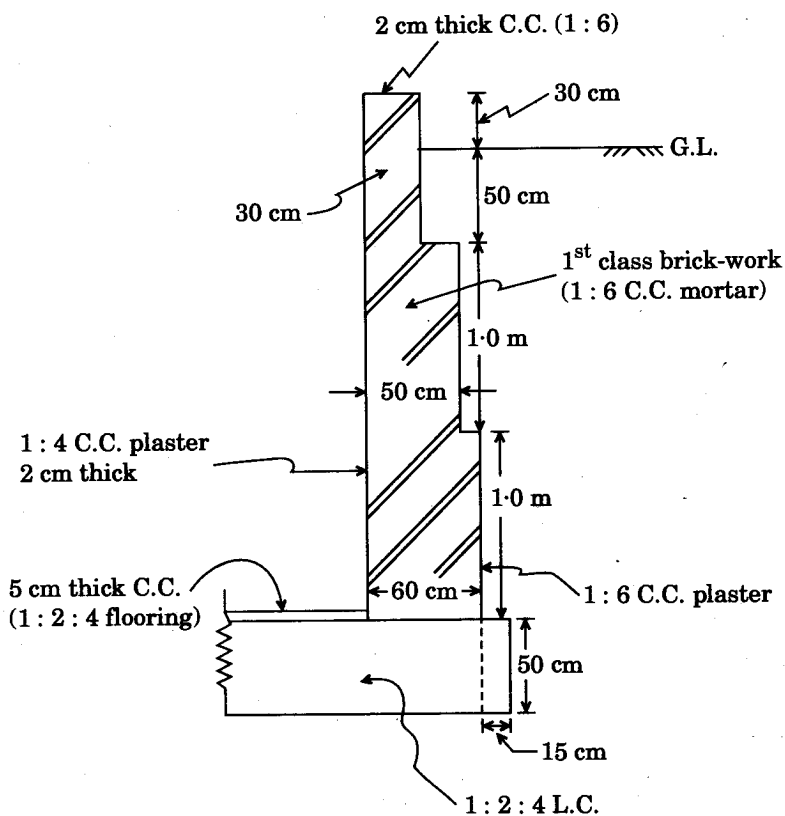
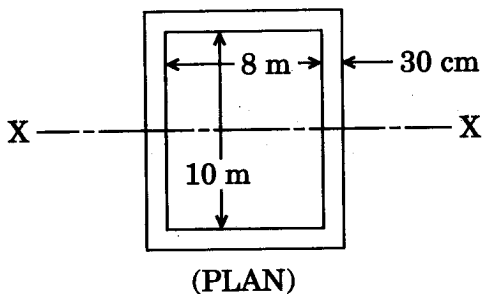


Figure 1

2. (a) Under what conditions do centreline and long-short wall methods give same results in building estimation ? Explain. 4

(b) Following data for 50 cm length of a path are available :

Chainage (m)	0	30	50
R.L. (Ground) (m)	100	100.5	100.6
R.L. (Formation) (m)	100	101.5	102.5

Assuming formation width of 2.0 m, and the ground having no cross slope, compute the quantity of earth work involved. Is this earth work in cutting/filling/partially both ? Explain. 10

3. Prepare an analysis of rates (assuming suitable rates for labour and materials) for the following items of work :

(a) 2nd class B.W. under the ground, and in the first storey superstructure. 7

(b) Earth work in filling (including ramming and dressing) for a given road work. Assume suitable carriage and lift. 7

4. (a) Sketch out a ledged and braced wooden door in elevation and plan. 10
- (b) List out the builder's hardware for doors and windows. 4
5. Write the general specifications for the following :
- (a) Earth work in cutting 7
- (b) 1st class B.W. in 1 : 6 cement mortar 7
6. (a) Explain the different systems of contract. 5
- (b) Draw out a tender notice (as the in-charge executive engineer) for constructing a bridge far away from your town/city. 9
7. Write short notes on any *three* of the following : 14
- (a) Muster Roll
- (b) Measurement Book
- (c) Scrutiny of Tenders
- (d) Need for Lintels on Doors and Windows
- (e) Bar-bending Schedule
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